

## **ABSTRACT OF THE DISCLOSURE**

Device for occluding a vessel comprising a vaso-occluding stent, detachable balloon and internal ligation device. A vaso-occluding stent comprising an expandable stent, an expandable material disposed within the stent, and a barrier film for  
5 encapsulating the stent and the expandable material. The expandable material is formed on a thin sheet of stainless steel and spirally wound within in the stent. The pore size and pore density of the barrier film is selected to control the expansion rate of the expandable material.